

SEQUENCE LISTING

<110> BIOMERIEUX STELHYS

<120> Use of a polypeptide for detecting, preventing or treating
a pathological condition associated with a degenerative,
neurological or autoimmune disease

<130> SEP22

<140> PCT/FR00/02057

<141> 2000-07-17

<150> FR9909372

<151> 1999-07-15

<160> 75

<170> PatentIn Ver. 2.1

<210> 1

<211> 4393

<212> PRT

<213> Homo sapiens

<400> 1

Met Gly Trp Arg Ala Pro Gly Ala Leu Leu Leu Ala Leu Leu Leu His
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Gly Arg Leu Leu Ala Val Thr His Gly Leu Arg Ala Tyr Asp Gly Leu
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Ser Leu Pro Glu Asp Ile Glu Thr Val Thr Ala Ser Gln Met Arg Trp
35 40 45

Thr His Ser Tyr Leu Ser Asp Asp Glu Asp Met Leu Ala Asp Ser Ile
50 55 60

Ser Gly Asp Asp Leu Gly Ser Gly Asp Leu Gly Ser Gly Asp Phe Gln

65 70 75 80

Met Val Tyr Phe Arg Ala Leu Val Asn Phe Thr Arg Ser Ile Glu Tyr

85 90 95

Ser Pro Gln Leu Glu Asp Ala Gly Ser Arg Glu Phe Arg Glu Val Ser

100 105 110

Glu Ala Val Val Asp Thr Leu Glu Ser Glu Tyr Leu Lys Ile Pro Gly

115 120 125

Asp Gln Val Val Ser Val Val Phe Ile Lys Glu Leu Asp Gly Trp Val

130 135 140

Phe Val Glu Leu Asp Val Gly Ser Glu Gly Asn Ala Asp Gly Ala Gln

145 150 155 160

Ile Gln Glu Met Leu Leu Arg Val Ile Ser Ser Gly Ser Val Ala Ser

165 170 175

Tyr Val Thr Ser Pro Gln Gly Phe Gln Phe Arg Arg Leu Gly Thr Val

180 185 190

Pro Gln Phe Pro Arg Ala Cys Thr Glu Ala Glu Phe Ala Cys His Ser

195 200 205

Tyr Asn Glu Cys Val Ala Leu Glu Tyr Arg Cys Asp Arg Arg Pro Asp

210 215 220

Cys Arg Asp Met Ser Asp Glu Leu Asn Cys Glu Glu Pro Val Leu Gly

225 230 235 240

Ile Ser Pro Thr Phe Ser Leu Leu Val Glu Thr Thr Ser Leu Pro Pro

245 250 255

Arg Pro Glu Thr Thr Ile Met Arg Gln Pro Pro Val Thr His Ala Pro
260 265 270

Gln Pro Leu Leu Pro Gly Ser Val Arg Pro Leu Pro Cys Gly Pro Gln
275 280 285

Glu Ala Ala Cys Arg Asn Gly His Cys Ile Pro Arg Asp Tyr Leu Cys
290 295 300

Asp Gly Gln Glu Asp Cys Glu Asp Gly Ser Asp Glu Leu Asp Cys Gly
305 310 315 320

Pro Pro Pro Pro Cys Glu Pro Asn Glu Phe Pro Cys Gly Asn Gly His
325 330 335

Cys Ala Leu Lys Leu Trp Arg Cys Asp Gly Asp Phe Asp Cys Glu Asp
340 345 350

Arg Thr Asp Glu Ala Asn Cys Pro Thr Lys Arg Pro Glu Glu Val Cys
355 360 365

Gly Pro Thr Gln Phe Arg Cys Val Ser Thr Asn Met Cys Ile Pro Ala
370 375 380

Ser Phe His Cys Asp Glu Glu Ser Asp Cys Pro Asp Arg Ser Asp Glu
385 390 395 400

Phe Gly Cys Met Pro Pro Gln Val Val Thr Pro Pro Arg Glu Ser Ile
405 410 415

Gln Ala Ser Arg Gly Gln Thr Val Thr Phe Thr Cys Val Ala Ile Gly
420 425 430

Val Pro Ala Pro Phe Leu Ile Asn Trp Arg Leu Asn Trp Gly His Ile
435 440 445

Pro Ser Gln Pro Arg Val Thr Val Thr Ser Glu Gly Gly Arg Gly Thr

450 455 460
Leu Ile Ile Arg Asp Val Lys Glu Ser Asp Gln Gly Ala Tyr Thr Cys
465 470 475 480
Glu Ala Met Asn Ala Arg Gly Met Val Phe Gly Ile Pro Asp Gly Val
 485 490 495
Leu Glu Leu Val Pro Gln Arg Ala Gly Pro Cys Pro Asp Gly His Phe
 500 505 510
Tyr Leu Glu His Ser Ala Ala Cys Leu Pro Cys Phe Cys Phe Gly Ile
 515 520 525
Thr Ser Val Cys Gln Ser Thr Arg Arg Phe Arg Asp Gln Ile Arg Leu
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Arg Phe Asp Gln Pro Asp Asp Phe Lys Gly Val Asn Val Thr Met Pro
545 550 555 560
Ala Gln Pro Gly Thr Pro Pro Leu Ser Ser Thr Gln Leu Gln Ile Asp
 565 570 575
Pro Ser Leu His Glu Phe Gln Leu Val Asp Leu Ser Arg Arg Phe Leu
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Val His Asp Ser Phe Trp Ala Leu Pro Glu Gln Phe Leu Gly Asn Lys
 595 600 605
Val Asp Ser Tyr Gly Gly Ser Leu Arg Tyr Asn Val Arg Tyr Glu Leu
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Ala Arg Gly Met Leu Glu Pro Val Gln Arg Pro Asp Val Val Leu Val
625 630 635 640
Gly Ala Gly Tyr Arg Leu Leu Ser Arg Gly His Thr Pro Thr Gln Pro
 645 650 655

Gly Ala Leu Asn Gln Arg Gln Val Gln Phe Ser Glu Glu His Trp Val
660 665 670

His Glu Ser Gly Arg Pro Val Gln Arg Ala Glu Leu Leu Gln Val Leu
675 680 685

Gln Ser Leu Glu Ala Val Leu Ile Gln Thr Val Tyr Asn Thr Lys Met
690 695 700

Ala Ser Val Gly Leu Ser Asp Ile Ala Met Asp Thr Thr Val Thr His
705 710 715 720

Ala Thr Ser His Gly Arg Ala His Ser Val Glu Glu Cys Arg Cys Pro
725 730 735

Ile Gly Tyr Ser Gly Leu Ser Cys Glu Ser Cys Asp Ala His Phe Thr
740 745 750

Arg Val Pro Gly Gly Pro Tyr Leu Gly Thr Cys Ser Gly Cys Ser Cys
755 760 765

Asn Gly His Ala Ser Ser Cys Asp Pro Val Tyr Gly His Cys Leu Asn
770 775 780

Cys Gln His Asn Thr Glu Gly Pro Gln Cys Lys Lys Cys Lys Ala Gly
785 790 795 800

Phe Phe Gly Asp Ala Met Lys Ala Thr Ala Thr Ser Cys Arg Pro Cys
805 810 815

Pro Cys Pro Tyr Ile Asp Ala Ser Arg Arg Phe Ser Asp Thr Cys Phe
820 825 830

Leu Asp Thr Asp Gly Gln Ala Thr Cys Asp Ala Cys Ala Pro Gly Tyr
835 840 845

Thr Gly Arg Arg Cys Glu Ser Cys Ala Pro Gly Tyr Glu Gly Asn Pro
850 855 860

Ile Gln Pro Gly Gly Lys Cys Arg Pro Val Asn Gln Glu Ile Val Arg
865 870 875 880

Cys Asp Glu Arg Gly Ser Met Gly Thr Ser Gly Glu Ala Cys Arg Cys
885 890 895

Lys Asn Asn Val Val Gly Arg Leu Cys Asn Glu Cys Ala Asp Arg Ser
900 905 910

Phe His Leu Ser Thr Arg Asn Pro Asp Gly Cys Leu Lys Cys Phe Cys
915 920 925

Met Gly Val Ser Arg His Cys Thr Ser Ser Ser Trp Ser Arg Ala Gln
930 935 940

Leu His Gly Ala Ser Glu Glu Pro Gly His Phe Ser Leu Thr Asn Ala
945 950 955 960

Ala Ser Thr His Thr Thr Asn Glu Gly Ile Phe Ser Pro Thr Pro Gly
965 970 975

Glu Leu Gly Phe Ser Ser Phe His Arg Leu Leu Ser Gly Pro Tyr Phe
980 985 990

Trp Ser Leu Pro Ser Arg Phe Leu Gly Asp Lys Val Thr Ser Tyr Gly
995 1000 1005

Gly Glu Leu Arg Phe Thr Val Thr Gln Arg Ser Gln Pro Gly Ser Thr
1010 1015 1020

Pro Leu His Gly Gln Pro Leu Val Val Leu Gln Gly Asn Asn Ile Ile
1025 1030 1035 1040

Leu Glu His His Val Ala Gln Glu Pro Ser Pro Gly Gln Pro Ser Thr

1045	1050	1055	
Phe Ile Val Pro Phe Arg Glu Gln Ala Trp Gln Arg Pro Asp Gly Gln			
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Pro Ala Thr Arg Glu His Leu Leu Met Ala Leu Ala Gly Ile Asp Thr			
1075	1080	1085	
Leu Leu Ile Arg Ala Ser Tyr Ala Gln Gln Pro Ala Glu Ser Arg Val			
1090	1095	1100	
Ser Gly Ile Ser Met Asp Val Ala Val Pro Glu Glu Thr Gly Gln Asp			
1105	1110	1115	1120
Pro Ala Leu Glu Val Glu Gln Cys Ser Cys Pro Pro Gly Tyr Arg Gly			
1125	1130	1135	
Pro Ser Cys Gln Asp Cys Asp Thr Gly Tyr Thr Arg Thr Pro Ser Gly			
1140	1145	1150	
Leu Tyr Leu Gly Thr Cys Glu Arg Cys Ser Cys His Gly His Ser Glu			
1155	1160	1165	
Ala Cys Glu Pro Glu Thr Gly Ala Cys Gln Gly Cys Gln His His Thr			
1170	1175	1180	
Glu Gly Pro Arg Cys Glu Gln Cys Gln Pro Gly Tyr Tyr Gly Asp Ala			
1185	1190	1195	1200
Gln Arg Gly Thr Pro Gln Asp Cys Gln Leu Cys Pro Cys Tyr Gly Asp			
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Pro Ala Ala Gly Gln Ala Ala His Thr Cys Phe Leu Asp Thr Asp Gly			
1220	1225	1230	
His Pro Thr Cys Asp Ala Cys Ser Pro Gly His Ser Gly Arg His Cys			
1235	1240	1245	

Glu Arg Cys Ala Pro Gly Tyr Tyr Gly Asn Pro Ser Gln Gly Gln Pro
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Cys Gln Arg Asp Ser Gln Val Pro Gly Pro Ile Gly Cys Asn Cys Asp
1265 1270 1275 1280

Pro Gln Gly Ser Val Ser Ser Gln Cys Asp Ala Ala Gly Gln Cys Gln
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Cys Lys Ala Gln Val Glu Gly Leu Thr Cys Ser His Cys Arg Pro His
1300 1305 1310

His Phe His Leu Ser Ala Ser Asn Pro Asp Gly Cys Leu Pro Cys Phe
1315 1320 1325

Cys Met Gly Ile Thr Gln Gln Cys Ala Ser Ser Ala Tyr Thr Arg His
1330 1335 1340

Leu Ile Ser Thr His Phe Ala Pro Gly Asp Phe Gln Gly Phe Ala Leu
1345 1350 1355 1360

Val Asn Pro Gln Arg Asn Ser Arg Leu Thr Gly Glu Phe Thr Val Glu
1365 1370 1375

Pro Val Pro Glu Gly Ala Gln Leu Ser Phe Gly Asn Phe Ala Gln Leu
1380 1385 1390

Gly His Glu Ser Phe Tyr Trp Gln Leu Pro Glu Thr Tyr Gln Gly Asp
1395 1400 1405

Lys Val Ala Ala Tyr Gly Gly Lys Leu Arg Tyr Thr Leu Ser Tyr Thr
1410 1415 1420

Ala Gly Pro Gln Gly Ser Pro Leu Ser Asp Pro Asp Val Gln Ile Thr
1425 1430 1435 1440

Gly Asn Asn Ile Met Leu Val Ala Ser Gln Pro Ala Leu Gln Gly Pro
1445 1450 1455

Glu Arg Arg Ser Tyr Glu Ile Met Phe Arg Glu Glu Phe Trp Arg Arg
1460 1465 1470

Pro Asp Gly Gln Pro Ala Thr Arg Glu His Leu Leu Met Ala Leu Ala
1475 1480 1485

Asp Leu Asp Glu Leu Leu Ile Arg Ala Thr Phe Ser Ser Val Pro Leu
1490 1495 1500

Val Ala Ser Ile Ser Ala Val Ser Leu Glu Val Ala Gln Pro Gly Pro
1505 1510 1515 1520

Ser Asn Arg Pro Arg Ala Leu Glu Val Glu Glu Cys Arg Cys Pro Pro
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Gly Tyr Ile Gly Leu Ser Cys Gln Asp Cys Ala Pro Gly Tyr Thr Arg
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Thr Gly Ser Gly Leu Tyr Leu Gly His Cys Glu Leu Cys Glu Cys Asn
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Gly His Ser Asp Leu Cys His Pro Glu Thr Gly Ala Cys Ser Gln Cys
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Gln His Asn Ala Ala Gly Glu Phe Cys Glu Leu Cys Ala Pro Gly Tyr
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Tyr Gly Asp Ala Thr Ala Gly Thr Pro Glu Asp Cys Gln Pro Cys Ala
1605 1610 1615

Cys Pro Leu Thr Asn Pro Glu Asn Met Phe Ser Arg Thr Cys Glu Ser
1620 1625 1630

Leu Gly Ala Gly Gly Tyr Arg Cys Thr Ala Cys Glu Pro Gly Tyr Thr

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Gly Gln Tyr Cys Glu Gln Cys Gly Pro Gly Tyr Val Gly Asn Pro Ser			
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Val Gln Gly Gly Gln Cys Leu Pro Glu Thr Asn Gln Ala Pro Leu Val			
1665	1670	1675	1680
Val Glu Val His Pro Ala Arg Ser Ile Val Pro Gln Gly Gly Ser His			
	1685	1690	1695
Ser Leu Arg Cys Gln Val Ser Gly Arg Gly Pro His Tyr Phe Tyr Trp			
	1700	1705	1710
Ser Arg Glu Asp Gly Arg Pro Val Pro Ser Gly Thr Gln Gln Arg His			
	1715	1720	1725
Gln Gly Ser Glu Leu His Phe Pro Ser Val Gln Pro Ser Asp Ala Gly			
	1730	1735	1740
Val Tyr Ile Cys Thr Cys Arg Asn Leu His Arg Ser Asn Thr Ser Arg			
1745	1750	1755	1760
Ala Glu Leu Leu Val Thr Glu Ala Pro Ser Lys Pro Ile Thr Val Thr			
	1765	1770	1775
Val Glu Glu Gln Arg Ser Gln Ser Val Arg Pro Gly Ala Asp Val Thr			
	1780	1785	1790
Phe Ile Cys Thr Ala Lys Ser Lys Ser Pro Ala Tyr Thr Leu Val Trp			
	1795	1800	1805
Thr Arg Leu His Asn Gly Lys Leu Pro Thr Arg Ala Met Asp Phe Asn			
	1810	1815	1820
Gly Ile Leu Thr Ile Arg Asn Val Gln Leu Ser Asp Ala Gly Thr Tyr			
1825	1830	1835	1840

Val Cys Thr Gly Ser Asn Met Phe Ala Met Asp Gln Gly Thr Ala Thr
1845 1850 1855

Leu His Val Gln Ala Ser Gly Thr Leu Ser Ala Pro Val Val Ser Ile
1860 1865 1870

His Pro Pro Gln Leu Thr Val Gln Pro Gly Gln Leu Ala Glu Phe Arg
1875 1880 1885

Cys Ser Ala Thr Gly Ser Pro Thr Pro Thr Leu Glu Trp Thr Gly Gly
1890 1895 1900

Pro Gly Gly Gln Leu Pro Ala Lys Ala Gln Ile His Gly Gly Ile Leu
1905 1910 1915 1920

Arg Leu Pro Ala Val Glu Pro Thr Asp Gln Ala Gln Tyr Leu Cys Arg
1925 1930 1935

Ala His Ser Ser Ala Gly Gln Gln Val Ala Arg Ala Val Leu His Val
1940 1945 1950

His Gly Gly Gly Gly Pro Arg Val Gln Val Ser Pro Glu Arg Thr Gln
1955 1960 1965

Val His Ala Gly Arg Thr Val Arg Leu Tyr Cys Arg Ala Ala Gly Val
1970 1975 1980

Pro Ser Ala Thr Ile Thr Trp Arg Lys Glu Gly Gly Ser Leu Pro Pro
1985 1990 1995 2000

Gln Ala Arg Ser Glu Arg Thr Asp Ile Ala Thr Leu Leu Ile Pro Ala
2005 2010 2015

Ile Thr Thr Ala Asp Ala Gly Phe Tyr Leu Cys Val Ala Thr Ser Pro
2020 2025 2030

Ala Gly Thr Ala Gln Ala Arg Ile Gln Val Val Val Leu Ser Ala Ser
2035 2040 2045

Asp Ala Ser Gln Pro Pro Val Lys Ile Glu Ser Ser Ser Pro Ser Val
2050 2055 2060

Thr Glu Gly Gln Thr Leu Asp Leu Asn Cys Val Val Ala Gly Ser Ala
2065 2070 2075 2080

His Ala Gln Val Thr Trp Tyr Arg Arg Gly Gly Ser Leu Pro His His
2085 2090 2095

Thr Gln Val His Gly Ser Arg Leu Arg Leu Pro Gln Val Ser Pro Ala
2100 2105 2110

Asp Ser Gly Glu Tyr Val Cys Arg Val Glu Asn Gly Ser Gly Pro Lys
2115 2120 2125

Glu Ala Ser Ile Thr Val Ser Val Leu His Gly Thr His Ser Gly Pro
2130 2135 2140

Ser Tyr Thr Pro Val Pro Gly Ser Thr Arg Pro Ile Arg Ile Glu Pro
2145 2150 2155 2160

Ser Ser Ser His Val Ala Glu Gly Gln Thr Leu Asp Leu Asn Cys Val
2165 2170 2175

Val Pro Gly Gln Ala His Ala Gln Val Thr Trp His Lys Arg Gly Gly
2180 2185 2190

Ser Leu Pro Ala Arg His Gln Thr His Gly Ser Leu Leu Arg Leu His
2195 2200 2205

Gln Val Thr Pro Ala Asp Ser Gly Glu Tyr Val Cys His Val Val Gly
2210 2215 2220

Thr Ser Gly Pro Leu Glu Ala Ser Val Leu Val Thr Ile Glu Ala Ser

2225 2230 2235 2240

Val Ile Pro Gly Pro Ile Pro Pro Val Arg Ile Glu Ser Ser Ser Ser

2245 2250 2255

Thr Val Ala Glu Gly Gln Thr Leu Asp Leu Ser Cys Val Val Ala Gly

2260 2265 2270

Gln Ala His Ala Gln Val Thr Trp Tyr Lys Arg Gly Gly Ser Leu Pro

2275 2280 2285

Ala Arg His Gln Val Arg Gly Ser Arg Leu Tyr Ile Phe Gln Ala Ser

2290 2295 2300

Pro Ala Asp Ala Gly Gln Tyr Val Cys Arg Ala Ser Asn Gly Met Glu

2305 2310 2315 2320

Ala Ser Ile Thr Val Thr Val Thr Gly Thr Gln Gly Ala Asn Leu Ala

2325 2330 2335

Tyr Pro Ala Gly Ser Thr Gln Pro Ile Arg Ile Glu Pro Ser Ser Ser

2340 2345 2350

Gln Val Ala Glu Gly Gln Thr Leu Asp Leu Asn Cys Val Val Pro Gly

2355 2360 2365

Gln Ser His Ala Gln Val Thr Trp His Lys Arg Gly Gly Ser Leu Pro

2370 2375 2380

Val Arg His Gln Thr His Gly Ser Leu Leu Arg Leu Tyr Gln Ala Ser

2385 2390 2395 2400

Pro Ala Asp Ser Gly Glu Tyr Val Cys Arg Val Leu Gly Ser Ser Val

2405 2410 2415

Pro Leu Glu Ala Ser Val Leu Val Thr Ile Glu Pro Ala Gly Ser Val

2420 2425 2430

Pro Ala Leu Gly Val Thr Pro Thr Val Arg Ile Glu Ser Ser Ser Ser
2435 2440 2445

Gln Val Ala Glu Gly Gln Thr Leu Asp Leu Asn Cys Leu Val Ala Gly
2450 2455 2460

Gln Ala His Ala Gln Val Thr Trp His Lys Arg Gly Gly Ser Leu Pro
2465 2470 2475 2480

Ala Arg His Gln Val His Gly Ser Arg Leu Arg Leu Leu Gln Val Thr
2485 2490 2495

Pro Ala Asp Ser Gly Glu Tyr Val Cys Arg Val Val Gly Ser Ser Gly
2500 2505 2510

Thr Gln Glu Ala Ser Val Leu Val Thr Ile Gln Gln Arg Leu Ser Gly
2515 2520 2525

Ser His Ser Gln Gly Val Ala Tyr Pro Val Arg Ile Glu Ser Ser Ser
2530 2535 2540

Ala Ser Leu Ala Asn Gly His Thr Leu Asp Leu Asn Cys Leu Val Ala
2545 2550 2555 2560

Ser Gln Ala Pro His Thr Ile Thr Trp Tyr Lys Arg Gly Gly Ser Leu
2565 2570 2575

Pro Ser Arg His Gln Ile Val Gly Ser Arg Leu Arg Ile Pro Gln Val
2580 2585 2590

Thr Pro Ala Asp Ser Gly Glu Tyr Val Cys His Val Ser Asn Gly Ala
2595 2600 2605

Gly Ser Arg Glu Thr Ser Leu Ile Val Thr Ile Gln Gly Ser Gly Ser
2610 2615 2620

Ser His Val Pro Arg Val Ser Pro Pro Ile Arg Ile Glu Ser Ser Ser

2625 2630 2635 2640

Pro Thr Val Val Glu Gly Gln Thr Leu Asp Leu Asn Cys Val Val Ala

2645 2650 2655

Arg Gln Pro Gln Ala Ile Ile Thr Trp Tyr Lys Arg Gly Gly Ser Leu

2660 2665 2670

Pro Ser Arg His Gln Thr His Gly Ser His Leu Arg Leu His Gln Met

2675 2680 2685

Ser Val Ala Asp Ser Gly Glu Tyr Val Cys Arg Ala Asn Asn Asn Ile

2690 2695 2700

Asp Ala Leu Glu Ala Ser Ile Val Ile Ser Val Ser Pro Ser Ala Gly

2705 2710 2715 2720

Ser Pro Ser Ala Pro Gly Ser Ser Met Pro Ile Arg Ile Glu Ser Ser

2725 2730 2735

Ser Ser His Val Ala Glu Gly Glu Thr Leu Asp Leu Asn Cys Val Val

2740 2745 2750

Pro Gly Gln Ala His Ala Gln Val Thr Trp His Lys Arg Gly Gly Ser

2755 2760 2765

Leu Pro Ser Tyr His Gln Thr Arg Gly Ser Arg Leu Arg Leu His His

2770 2775 2780

Val Ser Pro Ala Asp Ser Gly Glu Tyr Val Cys Arg Val Met Gly Ser

2785 2790 2795 2800

Ser Gly Pro Leu Glu Ala Ser Val Leu Val Thr Ile Glu Ala Ser Gly

2805 2810 2815

Ser Ser Ala Val His Val Pro Ala Pro Gly Gly Ala Pro Pro Ile Arg

2820 2825 2830
Ile Glu Pro Ser Ser Ser Arg Val Ala Glu Gly Gln Thr Leu Asp Leu
2835 2840 2845
Lys Cys Val Val Pro Gly Gln Ala His Ala Gln Val Thr Trp His Lys
2850 2855 2860
Arg Gly Gly Asn Leu Pro Ala Arg His Gln Val His Gly Pro Leu Leu
2865 2870 2875 2880
Arg Leu Asn Gln Val Ser Pro Ala Asp Ser Gly Glu Tyr Ser Cys Gln
2885 2890 2895
Val Thr Gly Ser Ser Gly Thr Leu Glu Ala Ser Val Leu Val Thr Ile
2900 2905 2910
Glu Pro Ser Ser Pro Gly Pro Ile Pro Ala Pro Gly Leu Ala Gln Pro
2915 2920 2925
Ile Tyr Ile Glu Ala Ser Ser Ser His Val Thr Glu Gly Gln Thr Leu
2930 2935 2940
Asp Leu Asn Cys Val Val Pro Gly Gln Ala His Ala Gln Val Thr Trp
2945 2950 2955 2960
Tyr Lys Arg Gly Gly Ser Leu Pro Ala Arg His Gln Thr His Gly Ser
2965 2970 2975
Gln Leu Arg Leu His His Val Ser Pro Ala Asp Ser Gly Glu Tyr Val
2980 2985 2990
Cys Arg Ala Ala Gly Gly Pro Gly Pro Glu Gln Glu Ala Ser Phe Thr
2995 3000 3005
Val Thr Val Pro Pro Ser Glu Gly Ser Ser Tyr Arg Leu Arg Ser Pro
3010 3015 3020

Val Ile Ser Ile Asp Pro Pro Ser Ser Thr Val Gln Gln Gly Gln Asp

3025 3030 3035 3040

Ala Ser Phe Lys Cys Leu Ile His Asp Gly Ala Ala Pro Ile Ser Leu

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Glu Trp Lys Thr Arg Asn Gln Glu Leu Glu Asp Asn Val His Ile Ser

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Pro Asn Gly Ser Ile Ile Thr Ile Val Gly Thr Arg Pro Ser Asn His

3075 3080 3085

Gly Thr Tyr Arg Cys Val Ala Ser Asn Ala Tyr Gly Val Ala Gln Ser

3090 3095 3100

Val Val Asn Leu Ser Val His Gly Pro Pro Thr Val Ser Val Leu Pro

3105 3110 3115 3120

Glu Gly Pro Val Trp Val Lys Val Gly Lys Ala Val Thr Leu Glu Cys

3125 3130 3135

Val Ser Ala Gly Glu Pro Arg Ser Ser Ala Arg Trp Thr Arg Ile Ser

3140 3145 3150

Ser Thr Pro Ala Lys Leu Glu Gln Arg Thr Tyr Gly Leu Met Asp Ser

3155 3160 3165

His Thr Val Leu Gln Ile Ser Ser Ala Lys Pro Ser Asp Ala Gly Thr

3170 3175 3180

Tyr Val Cys Leu Ala Gln Asn Ala Leu Gly Thr Ala Gln Lys Gln Val

3185 3190 3195 3200

Glu Val Ile Val Asp Thr Gly Ala Met Ala Pro Gly Ala Pro Gln Val

3205 3210 3215

Gln Ala Glu Glu Ala Glu Leu Thr Val Glu Ala Gly His Thr Ala Thr
3220 3225 3230

Leu Arg Cys Ser Ala Thr Gly Ser Pro Ala Arg Thr Ile His Trp Ser
3235 3240 3245

Lys Leu Arg Ser Pro Leu Pro Trp Gln His Arg Leu Glu Gly Asp Thr
3250 3255 3260

Leu Ile Ile Pro Arg Val Ala Gln Gln Asp Ser Gly Gln Tyr Ile Cys
3265 3270 3275 3280

Asn Ala Thr Ser Pro Ala Gly His Ala Glu Ala Thr Ile Ile Leu His
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Val Glu Ser Pro Pro Tyr Ala Thr Thr Val Pro Glu His Ala Ser Val
3300 3305 3310

Gln Ala Gly Glu Thr Val Gln Leu Gln Cys Leu Ala His Gly Thr Pro
3315 3320 3325

Pro Leu Thr Phe Gln Trp Ser Arg Val Gly Ser Ser Leu Pro Gly Arg
3330 3335 3340

Ala Thr Ala Arg Asn Glu Leu Leu His Phe Glu Arg Ala Ala Pro Glu
3345 3350 3355 3360

Asp Ser Gly Arg Tyr Arg Cys Arg Val Thr Asn Lys Val Gly Ser Ala
3365 3370 3375

Glu Ala Phe Ala Gln Leu Leu Val Gln Gly Pro Pro Gly Ser Leu Pro
3380 3385 3390

Ala Thr Ser Ile Pro Ala Gly Ser Thr Pro Thr Val Gln Val Thr Pro
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Gln Leu Glu Thr Lys Ser Ile Gly Ala Ser Val Glu Phe His Cys Ala

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Val Pro Ser Asp Arg Gly Thr Gln Leu Arg Trp Phe Lys Glu Gly Gly
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Gln Leu Pro Pro Gly His Ser Val Gln Asp Gly Val Leu Arg Ile Gln
3445 3450 3455

Asn Leu Asp Gln Ser Cys Gln Gly Thr Tyr Ile Cys Gln Ala His Gly
3460 3465 3470

Pro Trp Gly Lys Ala Gln Ala Ser Ala Gln Leu Val Ile Gln Ala Leu
3475 3480 3485

Pro Ser Val Leu Ile Asn Ile Arg Thr Ser Val Gln Thr Val Val Val
3490 3495 3500

Gly His Ala Val Glu Phe Glu Cys Leu Ala Leu Gly Asp Pro Lys Pro
3505 3510 3515 3520

Gln Val Thr Trp Ser Lys Val Gly Gly His Leu Arg Pro Gly Ile Val
3525 3530 3535

Gln Ser Gly Gly Val Val Arg Ile Ala His Val Glu Leu Ala Asp Ala
3540 3545 3550

Gly Gln Tyr Arg Cys Thr Ala Thr Asn Ala Ala Gly Thr Thr Gln Ser
3555 3560 3565

His Val Leu Leu Leu Val Gln Ala Leu Pro Gln Ile Ser Met Pro Gln
3570 3575 3580

Glu Val Arg Val Pro Ala Gly Ser Ala Ala Val Phe Pro Cys Ile Ala
3585 3590 3595 3600

Ser Gly Tyr Pro Thr Pro Asp Ile Ser Trp Ser Lys Leu Asp Gly Ser
3605 3610 3615

Leu Pro Pro Asp Ser Arg Leu Glu Asn Asn Met Leu Met Leu Pro Ser
3620 3625 3630

Val Gln Pro Gln Asp Ala Gly Thr Tyr Val Cys Thr Ala Thr Asn Arg
3635 3640 3645

Gln Gly Lys Val Lys Ala Phe Ala His Leu Gln Val Pro Glu Arg Val
3650 3655 3660

Val Pro Tyr Phe Thr Gln Thr Pro Tyr Ser Phe Leu Pro Leu Pro Thr
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Ile Lys Asp Ala Tyr Arg Lys Phe Glu Ile Lys Ile Thr Phe Arg Pro
3685 3690 3695

Asp Ser Ala Asp Gly Met Leu Leu Tyr Asn Gly Gln Lys Arg Val Pro
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Gly Ser Pro Thr Asn Leu Ala Asn Arg Gln Pro Asp Phe Ile Ser Phe
3715 3720 3725

Gly Leu Val Gly Gly Arg Pro Glu Phe Arg Phe Asp Ala Gly Ser Gly
3730 3735 3740

Met Ala Thr Ile Arg His Pro Thr Pro Leu Ala Leu Gly His Phe His
3745 3750 3755 3760

Thr Val Thr Leu Leu Arg Ser Leu Thr Gln Gly Ser Leu Ile Val Gly
3765 3770 3775

Asp Leu Ala Pro Val Asn Gly Thr Ser Gln Gly Lys Phe Gln Gly Leu
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Asp Leu Asn Glu Glu Leu Tyr Leu Gly Gly Tyr Pro Asp Tyr Gly Ala
3795 3800 3805

Ile Pro Lys Ala Gly Leu Ser Ser Gly Phe Ile Gly Cys Val Arg Glu

3810

3815

3820

Leu Arg Ile Gln Gly Glu Glu Ile Val Phe His Asp Leu Asn Leu Thr

3825

3830

3835

3840

Ala His Gly Ile Ser His Cys Pro Thr Cys Arg Asp Arg Pro Cys Gln

3845

3850

3855

Asn Gly Gly Gln Cys His Asp Ser Glu Ser Ser Ser Tyr Val Cys Val

3860

3865

3870

Cys Pro Ala Gly Phe Thr Gly Ser Arg Cys Glu His Ser Gln Ala Leu

3875

3880

3885

His Cys His Pro Glu Ala Cys Gly Pro Asp Ala Thr Cys Val Asn Arg

3890

3895

3900

Pro Asp Gly Arg Gly Tyr Thr Cys Arg Cys His Leu Gly Arg Ser Gly

3905

3910

3915

3920

Leu Arg Cys Glu Glu Gly Val Thr Val Thr Thr Pro Ser Leu Ser Gly

3925

3930

3935

Ala Gly Ser Tyr Leu Ala Leu Pro Ala Leu Thr Asn Thr His His Glu

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3945

3950

Leu Arg Leu Asp Val Glu Phe Lys Pro Leu Ala Pro Asp Gly Val Leu

3955

3960

3965

Leu Phe Ser Gly Gly Lys Ser Gly Pro Val Glu Asp Phe Val Ser Leu

3970

3975

3980

Ala Met Val Gly Gly His Leu Glu Phe Arg Tyr Glu Leu Gly Ser Gly

3985

3990

3995

4000

Leu Ala Val Leu Arg Thr Ala Glu Pro Leu Ala Leu Gly Arg Trp His

4005	4010	4015	
Arg Val Ser Ala Glu Arg Leu Asn Lys Asp Gly Ser Leu Arg Val Asn			
4020	4025	4030	
Gly Gly Arg Pro Val Leu Arg Ser Ser Pro Gly Lys Ser Gln Gly Leu			
4035	4040	4045	
Asn Leu His Thr Leu Leu Tyr Leu Gly Gly Val Glu Pro Ser Val Pro			
4050	4055	4060	
Leu Ser Pro Ala Thr Asn Met Ser Ala His Phe Arg Gly Cys Val Gly			
4065	4070	4075	4080
Glu Val Ser Val Asn Gly Lys Arg Leu Asp Leu Thr Tyr Ser Phe Leu			
4085	4090	4095	
Gly Ser Gln Gly Ile Gly Gln Cys Tyr Asp Ser Ser Pro Cys Glu Arg			
4100	4105	4110	
Gln Pro Cys Gln His Gly Ala Thr Cys Met Pro Ala Gly Glu Tyr Glu			
4115	4120	4125	
Phe Gln Cys Leu Cys Arg Asp Gly Ile Lys Gly Asp Leu Cys Glu His			
4130	4135	4140	
Glu Glu Asn Pro Cys Gln Leu Arg Glu Pro Cys Leu His Gly Gly Thr			
4145	4150	4155	4160
Cys Gln Gly Thr Arg Cys Leu Cys Leu Pro Gly Phe Ser Gly Pro Arg			
4165	4170	4175	
Cys Gln Gln Gly Ser Gly His Gly Ile Ala Glu Ser Asp Trp His Leu			
4180	4185	4190	
Glu Gly Ser Gly Gly Asn Asp Ala Pro Gly Gln Tyr Gly Ala Tyr Phe			
4195	4200	4205	

His Asp Asp Gly Phe Leu Ala Phe Pro Gly His Val Phe Ser Arg Ser
4210 4215 4220

Leu Pro Glu Val Pro Glu Thr Ile Glu Leu Glu Val Arg Thr Ser Thr
4225 4230 4235 4240

Ala Ser Gly Leu Leu Leu Trp Gln Gly Val Glu Val Gly Glu Ala Gly
4245 4250 4255

Gln Gly Lys Asp Phe Ile Ser Leu Gly Leu Gln Asp Gly His Leu Val
4260 4265 4270

Phe Arg Tyr Gln Leu Gly Ser Gly Glu Ala Arg Leu Val Ser Glu Asp
4275 4280 4285

Pro Ile Asn Asp Gly Glu Trp His Arg Val Thr Ala Leu Arg Glu Gly
4290 4295 4300

Arg Arg Gly Ser Ile Gln Val Asp Gly Glu Glu Leu Val Ser Gly Arg
4305 4310 4315 4320

Ser Pro Gly Pro Asn Val Ala Val Asn Ala Lys Gly Ser Ile Tyr Ile
4325 4330 4335

Gly Gly Ala Pro Asp Val Ala Thr Leu Thr Gly Gly Arg Phe Ser Ser
4340 4345 4350

Gly Ile Thr Gly Cys Val Lys Asn Leu Val Leu His Ser Ala Arg Pro
4355 4360 4365

Gly Ala Pro Pro Pro Gln Pro Leu Asp Leu Gln His Arg Ala Gln Ala
4370 4375 4380

Gly Ala Asn Thr Arg Pro Cys Pro Ser
4385 4390

<210> 2

<211> 195

<212> PRT

<213> Homo sapiens

<400> 2

Asp Ala Pro Gly Gln Tyr Gly Ala Tyr Phe His Asp Asp Gly Phe Leu
1 5 10 15

Ala Phe Pro Gly His Val Phe Ser Arg Ser Leu Pro Glu Val Pro Glu
20 25 30

Thr Ile Glu Leu Glu Val Arg Thr Ser Thr Ala Ser Gly Leu Leu Leu
35 40 45

Trp Gln Gly Val Glu Val Gly Glu Ala Gly Gln Gly Lys Asp Phe Ile
50 55 60

Ser Leu Gly Leu Gln Asp Gly His Leu Val Phe Arg Tyr Gln Leu Gly
65 70 75 80

Ser Gly Glu Ala Arg Leu Val Ser Glu Asp Pro Ile Asn Asp Gly Glu
85 90 95

Trp His Arg Val Thr Ala Leu Arg Glu Gly Arg Arg Gly Ser Ile Gln
100 105 110

Val Asp Gly Glu Glu Leu Val Ser Gly Arg Ser Pro Gly Pro Asn Val
115 120 125

Ala Val Asn Ala Lys Gly Ser Val Tyr Ile Gly Gly Ala Pro Asp Val
130 135 140

Ala Thr Leu Thr Gly Gly Arg Phe Ser Ser Gly Ile Thr Gly Cys Val
145 150 155 160

Lys Asn Leu Val Leu His Ser Ala Arg Pro Gly Ala Pro Pro Pro Gln
 165 170 175

Pro Leu Asp Leu Gln His Arg Ala Gln Ala Gly Ala Asn Thr Arg Pro
 180 185 190

Cys Pro Ser
 195

<210> 3

<211> 508

<212> PRT

<213> Homo sapiens

<400> 3

Arg Thr Cys Arg Cys Lys Asn Asn Val Val Gly Arg Leu Cys Asn Glu
 1 5 10 15

Cys Ala Asp Arg Ser Phe His Leu Ser Thr Arg Asn Pro Asp Gly Cys
 20 25 30

Leu Lys Cys Phe Cys Met Gly Val Ser Arg His Cys Thr Ser Ser Ser
 35 40 45

Trp Ser Arg Ala Gln Leu His Gly Ala Ser Glu Glu Pro Gly His Phe
 50 55 60

Ser Leu Thr Asn Ala Ala Ser Thr His Thr Thr Asn Glu Gly Ile Phe
 65 70 75 80

Ser Pro Thr Pro Gly Glu Leu Gly Phe Ser Ser Phe His Arg Leu Leu
 85 90 95

Ser Gly Pro Tyr Phe Trp Ser Leu Pro Ser Arg Phe Leu Gly Asp Lys

100 105 110
Val Thr Ser Tyr Gly Gly Glu Leu Arg Phe Thr Val Thr Gln Arg Ser
115 120 125
Gln Pro Gly Ser Thr Pro Leu His Gly Gln Pro Leu Val Val Leu Gln
130 135 140
Gly Asn Asn Ile Ile Leu Glu His His Val Ala Gln Glu Pro Ser Pro
145 150 155 160
Gly Gln Pro Ser Thr Phe Ile Val Pro Phe Arg Glu Gln Ala Trp Gln
165 170 175
Arg Pro Asp Gly Gln Pro Ala Thr Arg Glu His Leu Leu Met Ala Leu
180 185 190
Ala Gly Ile Asp Thr Leu Leu Ile Arg Ala Ser Tyr Ala Gln Gln Pro
195 200 205
Ala Glu Ser Arg Leu Ser Gly Ile Ser Met Asp Val Ala Val Pro Glu
210 215 220
Glu Thr Gly Gln Asp Pro Ala Leu Glu Val Glu Gln Cys Ser Cys Pro
225 230 235 240
Pro Gly Tyr Leu Gly Pro Ser Cys Gln Asp Cys Asp Thr Gly Tyr Thr
245 250 255
Arg Thr Pro Ser Gly Leu Tyr Leu Gly Thr Cys Glu Arg Cys Ser Cys
260 265 270
His Gly His Ser Glu Ala Cys Glu Pro Glu Thr Gly Ala Cys Gln Gly
275 280 285
Cys Gln His His Thr Glu Gly Pro Arg Cys Glu Gln Cys Gln Pro Gly
290 295 300

Tyr Tyr Gly Asp Ala Gln Arg Gly Thr Pro Gln Asp Cys Gln Leu Cys
305 310 315 320

Pro Cys Tyr Gly Asp Pro Ala Ala Gly Gln Ala Ala Leu Thr Cys Phe
325 330 335

Leu Asp Thr Asp Gly His Pro Thr Cys Asp Ala Cys Ser Pro Gly His
340 345 350

Ser Gly Arg His Cys Glu Arg Cys Ala Pro Gly Tyr Tyr Gly Asn Pro
355 360 365

Ser Gln Gly Gln Pro Cys Gln Arg Asp Ser Gln Val Pro Gly Pro Ile
370 375 380

Gly Cys Asn Cys Asp Pro Gln Gly Ser Val Ser Ser Gln Cys Asp Ala
385 390 395 400

Ala Gly Gln Cys Gln Cys Lys Ala Gln Val Glu Gly Leu Thr Cys Ser
405 410 415

His Cys Arg Pro His His Phe His Leu Ser Ala Ser Asn Pro Asp Gly
420 425 430

Cys Leu Pro Cys Phe Cys Met Gly Ile Thr Gln Gln Cys Ala Ser Ser
435 440 445

Ala Tyr Thr Arg His Leu Ile Ser Thr His Phe Ala Pro Gly Asp Phe
450 455 460

Gln Gly Phe Ala Leu Val Asn Pro Gln Arg Asn Ser Arg Leu Thr Gly
465 470 475 480

Glu Phe Thr Val Glu Pro Val Pro Glu Gly Ala Gln Leu Ser Phe Gly
485 490 495

Asn Phe Ala Gln Leu Gly His Glu Ser Phe Tyr Trp

500

505

<210> 4

<211> 199

<212> PRT

<213> Homo sapiens

<400> 4

Met Lys Trp Val Trp Ala Leu Leu Leu Ala Ala Trp Ala Ala Ala

1

5

10

15

Glu Arg Asp Cys Arg Val Ser Ser Phe Arg Val Lys Glu Asn Phe Asp

20

25

30

Lys Ala Arg Phe Ser Gly Thr Trp Tyr Ala Met Ala Lys Lys Asp Pro

35

40

45

Glu Gly Leu Phe Leu Gln Asp Asn Ile Val Ala Glu Phe Ser Val Asp

50

55

60

Glu Thr Gly Gln Met Ser Ala Thr Ala Lys Gly Arg Val Arg Leu Leu

65

70

75

80

Asn Asn Trp Asp Val Cys Ala Asp Met Val Gly Thr Phe Thr Asp Thr

85

90

95

Glu Asp Pro Ala Lys Phe Lys Met Lys Tyr Trp Gly Val Ala Ser Phe

100

105

110

Leu Gln Lys Gly Asn Asp Asp His Trp Ile Val Asp Thr Asp Tyr Asp

115

120

125

Thr Tyr Ala Val Gln Tyr Ser Cys Arg Leu Leu Asn Leu Asp Gly Thr

130

135

140

Cys Ala Asp Ser Tyr Ser Phe Val Phe Ser Arg Asp Pro Asn Gly Leu

145 150 155 160

Pro Pro Glu Ala Gln Lys Ile Val Arg Gln Arg Gln Glu Glu Leu Cys

165 170 175

Leu Ala Arg Gln Tyr Arg Leu Ile Val His Asn Gly Tyr Cys Asp Gly

180 185 190

Arg Ser Glu Arg Asn Leu Leu

195

<210> 5

<211> 199

<212> PRT

<213> Homo sapiens

<400> 5

Met Lys Trp Val Trp Ala Leu Leu Leu Leu Ala Ala Trp Ala Ala Ala

1 5 10 15

Glu Arg Asp Cys Arg Val Ser Ser Phe Arg Val Lys Glu Asn Phe Asp

20 25 30

Lys Ala Arg Phe Ser Gly Thr Trp Tyr Ala Met Ala Lys Lys Asp Pro

35 40 45

Glu Gly Leu Phe Leu Gln Asp Asn Ile Val Ala Glu Phe Ser Val Asp

50 55 60

Glu Thr Gly Gln Met Ser Ala Thr Ala Lys Gly Arg Val Arg Leu Leu

65 70 75 80

Asn Asn Trp Asp Val Cys Ala Asp Met Val Gly Thr Phe Thr Asp Thr

85

90

95

Glu Asp Pro Ala Lys Phe Lys Met Lys Tyr Trp Gly Val Ala Ser Phe

100

105

110

Leu Gln Lys Gly Asn Asp Asp His Trp Ile Val Asp Thr Asp Tyr Asp

115

120

125

Thr Tyr Ala Val Gln Tyr Ser Cys Arg Leu Leu Asn Leu Asp Gly Thr

130

135

140

Cys Ala Asp Ser Tyr Ser Phe Val Phe Ser Arg Asp Pro Asn Gly Leu

145

150

155

160

Pro Pro Glu Ala Gln Lys Ile Val Arg Gln Arg Gln Glu Glu Leu Cys

165

170

175

Leu Ala Arg Gln Tyr Arg Leu Ile Val His Asn Gly Tyr Cys Asp Gly

180

185

190

Arg Ser Glu Arg Asn Leu Leu

195

<210> 6

<211> 199

<212> PRT

<213> Homo sapiens

<400> 6

Met Lys Trp Val Trp Ala Leu Leu Leu Leu Ala Ala Trp Ala Ala Ala

1

5

10

15

Glu Arg Asp Cys Arg Val Ser Ser Phe Arg Val Lys Glu Asn Phe Asp

20

25

30

Lys Ala Arg Phe Ser Gly Thr Trp Tyr Ala Met Ala Lys Lys Asp Pro

35

40

45

Glu Gly Leu Phe Leu Gln Asp Asn Ile Val Ala Glu Phe Ser Val Asp

50

55

60

Glu Thr Gly Gln Met Ser Ala Thr Ala Lys Gly Arg Val Arg Leu Leu

65

70

75

80

Asn Asn Trp Asp Val Cys Ala Asp Met Val Gly Thr Phe Thr Asp Thr

85

90

95

Glu Asp Pro Ala Lys Phe Lys Met Lys Tyr Trp Gly Val Ala Ser Phe

100

105

110

Leu Gln Lys Gly Asn Asp Asp His Trp Ile Val Asp Thr Asp Tyr Asp

115

120

125

Thr Tyr Ala Val Gln Tyr Ser Cys Arg Leu Leu Asn Leu Asp Gly Thr

130

135

140

Cys Ala Asp Ser Tyr Ser Phe Val Phe Ser Arg Asp Pro Asn Gly Leu

145

150

155

160

Pro Pro Glu Ala Gln Lys Ile Val Arg Gln Arg Gln Glu Glu Leu Cys

165

170

175

Leu Ala Arg Gln Tyr Arg Leu Ile Val His Asn Gly Tyr Cys Asp Gly

180

185

190

Arg Ser Glu Arg Asn Leu Leu

195

<210> 7

<211> 182

<212> PRT

<213> Homo sapiens

<400> 7

Glu Arg Asp Cys Arg Val Ser Ser Phe Arg Val Lys Glu Asn Phe Asp

1 5 10 15

Lys Ala Arg Phe Ser Gly Thr Trp Tyr Ala Met Ala Lys Lys Asp Pro

20 25 30

Glu Gly Leu Phe Leu Gln Asp Asn Ile Val Ala Glu Phe Ser Val Asp

35 40 45

Glu Thr Gly Gln Met Ser Ala Thr Ala Lys Gly Arg Val Arg Leu Leu

50 55 60

Asn Asn Trp Asp Val Cys Ala Asp Met Val Gly Thr Phe Thr Asp Thr

65 70 75 80

Glu Asp Pro Ala Lys Phe Lys Met Lys Tyr Trp Gly Val Ala Ser Phe

85 90 95

Leu Gln Lys Gly Asn Asp Asp His Trp Ile Val Asp Thr Asp Tyr Asp

100 105 110

Thr Tyr Ala Val Gln Tyr Ser Cys Arg Leu Leu Asn Leu Asp Gly Thr

115 120 125

Cys Ala Asp Ser Tyr Ser Phe Val Phe Ser Arg Asp Pro Asn Gly Leu

130 135 140

Pro Pro Glu Ala Gln Lys Ile Val Arg Gln Arg Gln Glu Glu Leu Cys

145 150 155 160

Leu Ala Arg Gln Tyr Arg Leu Ile Val His Asn Gly Tyr Cys Asp Gly

165 170 175

Arg Ser Glu Arg Asn Leu

180

<210> 8

<211> 193

<212> PRT

<213> Homo sapiens

<400> 8

Met Gln Ser Leu Met Gln Ala Pro Leu Leu Ile Ala Leu Gly Leu Leu

1

5

10

15

Leu Ala Thr Pro Ala Gln Ala His Leu Lys Lys Pro Ser Gln Leu Ser

20

25

30

Ser Phe Ser Trp Asp Asn Cys Asp Glu Gly Lys Asp Pro Ala Val Ile

35

40

45

Arg Ser Leu Thr Leu Glu Pro Asp Pro Ile Val Val Pro Gly Asn Val

50

55

60

Thr Leu Ser Val Val Gly Ser Thr Ser Val Pro Leu Ser Ser Pro Leu

65

70

75

80

Lys Val Asp Leu Val Leu Glu Lys Glu Val Ala Gly Leu Trp Ile Lys

85

90

95

Ile Pro Cys Thr Asp Tyr Ile Gly Ser Cys Thr Phe Glu His Phe Cys

100

105

110

Asp Val Leu Asp Met Leu Ile Pro Thr Gly Glu Pro Cys Pro Glu Pro

115

120

125

Leu Arg Thr Tyr Gly Leu Pro Cys His Cys Pro Phe Lys Glu Gly Thr

130

135

140

Tyr Ser Leu Pro Lys Ser Glu Phe Val Val Pro Asp Leu Glu Leu Pro
145 150 155 160

Ser Trp Leu Thr Thr Gly Asn Tyr Arg Ile Glu Ser Val Leu Ser Ser
165 170 175

Ser Gly Lys Arg Leu Gly Cys Ile Lys Ile Ala Ala Ser Leu Lys Gly
180 185 190

Ile

<210> 9

<211> 193

<212> PRT

<213> Homo sapiens

<400> 9

Met Gln Ser Leu Met Gln Ala Pro Leu Leu Ile Ala Leu Gly Leu Leu
1 5 10 15

Leu Ala Thr Pro Ala Gln Ala His Leu Lys Lys Pro Ser Gln Leu Ser
20 25 30

Ser Phe Ser Trp Asp Asn Cys Phe Glu Gly Lys Asp Pro Ala Val Ile
35 40 45

Arg Ser Leu Thr Leu Glu Pro Asp Pro Ile Val Val Pro Gly Asn Val
50 55 60

Thr Leu Ser Val Val Gly Ser Thr Ser Val Pro Leu Ser Ser Pro Leu
65 70 75 80

Lys Val Asp Leu Val Leu Glu Lys Glu Val Ala Gly Leu Trp Ile Lys

85

90

95

Ile Pro Cys Thr Asp Tyr Ile Gly Ser Cys Thr Phe Glu His Phe Cys

100

105

110

Asp Val Leu Asp Met Leu Ile Pro Thr Gly Glu Pro Cys Pro Glu Pro

115

120

125

Leu Arg Thr Tyr Gly Leu Pro Cys His Cys Pro Phe Lys Glu Gly Thr

130

135

140

Tyr Ser Leu Pro Lys Ser Glu Phe Ala Val Pro Asp Leu Glu Leu Pro

145

150

155

160

Ser Trp Leu Thr Thr Gly Asn Tyr Arg Ile Glu Ser Val Leu Ser Ser

165

170

175

Ser Gly Lys Arg Leu Gly Cys Ile Lys Ile Ala Ala Ser Leu Lys Gly

180

185

190

Ile

<210> 10

<211> 178

<212> PRT

<213> Homo sapiens

<400> 10

Leu Leu Ala Thr Pro Ala Gln Ala His Leu Lys Lys Pro Ser Gln Leu

1

5

10

15

Ser Ser Phe Ser Trp Asp Asn Cys Asp Glu Gly Lys Asp Pro Ala Val

20

25

30

Ile Arg Ser Leu Thr Leu Glu Pro Asp Pro Ile Val Val Pro Gly Asn

35

40

45

Val Thr Leu Ser Val Val Gly Ser Thr Ser Val Pro Leu Ser Ser Pro

50

55

60

Leu Lys Val Asp Leu Val Leu Glu Lys Glu Val Ala Gly Leu Trp Ile

65

70

75

80

Lys Ile Pro Cys Thr Asp Tyr Ile Gly Ser Cys Thr Phe Glu His Phe

85

90

95

Cys Asp Val Leu Asp Met Leu Ile Pro Thr Gly Glu Pro Cys Pro Glu

100

105

110

Pro Leu Arg Thr Tyr Gly Leu Pro Cys His Cys Pro Phe Lys Glu Gly

115

120

125

Thr Tyr Ser Leu Pro Lys Ser Glu Phe Val Val Pro Asp Leu Glu Leu

130

135

140

Pro Ser Trp Leu Thr Thr Gly Asn Tyr Arg Ile Glu Ser Val Leu Ser

145

150

155

160

Ser Ser Gly Lys Arg Leu Gly Cys Ile Lys Ile Ala Ala Ser Leu Lys

165

170

175

Gly Ile

<210> 11

<211> 200

<212> PRT

<213> Homo sapiens

<400> 11

Arg Ala Gly Pro Pro Phe Pro Met Gln Ser Leu Met Gln Ala Pro Leu
1 5 10 15

Leu Ile Ala Leu Gly Leu Leu Leu Ala Ala Pro Ala Gln Ala His Leu
20 25 30

Lys Lys Pro Ser Gln Leu Ser Ser Phe Ser Trp Asp Asn Cys Asp Glu
35 40 45

Gly Lys Asp Pro Ala Val Ile Arg Ser Leu Thr Leu Glu Pro Asp Pro
50 55 60

Ile Ile Val Pro Gly Asn Val Thr Leu Ser Val Met Gly Ser Thr Ser
65 70 75 80

Val Pro Leu Ser Ser Pro Leu Lys Val Asp Leu Val Leu Glu Lys Glu
85 90 95

Val Ala Gly Leu Trp Ile Lys Ile Pro Cys Thr Asp Tyr Ile Gly Ser
100 105 110

Cys Thr Phe Glu His Phe Cys Asp Val Leu Asp Met Leu Ile Pro Thr
115 120 125

Gly Glu Pro Cys Pro Glu Pro Leu Arg Thr Tyr Gly Leu Pro Cys His
130 135 140

Cys Pro Phe Lys Glu Gly Thr Tyr Ser Leu Pro Lys Ser Glu Phe Val
145 150 155 160

Val Pro Asp Leu Glu Leu Pro Ser Trp Leu Thr Thr Gly Asn Tyr Arg
165 170 175

Ile Glu Ser Val Leu Ser Ser Ser Gly Lys Arg Leu Gly Cys Ile Lys
180 185 190

Ile Ala Ala Ser Leu Lys Gly Ile

195

200

<210> 12

<211> 189

<212> PRT

<213> Homo sapiens

<400> 12

Met Gln Ala Pro Leu Leu Ile Ala Leu Gly Leu Leu Leu Ala Thr Pro

1

5

10

15

Ala Gln Ala His Leu Lys Lys Pro Ser Gln Leu Ser Ser Phe Ser Trp

20

25

30

Asp Asn Cys Asp Glu Gly Lys Asp Pro Ala Val Ile Arg Ser Leu Thr

35

40

45

Leu Glu Pro Asp Pro Ile Val Val Pro Gly Asn Val Thr Leu Ser Val

50

55

60

Val Gly Ser Thr Ser Val Pro Leu Ser Ser Pro Leu Lys Val Asp Leu

65

70

75

80

Val Leu Glu Lys Glu Val Ala Gly Leu Trp Ile Lys Ile Pro Cys Thr

85

90

95

Asp Tyr Ile Gly Ser Cys Thr Phe Glu His Phe Cys Asp Val Leu Asp

100

105

110

Met Leu Ile Pro Thr Gly Glu Pro Cys Pro Glu Pro Leu Arg Thr Tyr

115

120

125

Gly Leu Pro Cys His Cys Pro Phe Lys Glu Gly Thr Tyr Ser Leu Pro

130

135

140

Lys Ser Glu Phe Val Val Pro Asp Leu Glu Leu Pro Ser Trp Leu Thr
145 150 155 160

Thr Gly Asn Tyr Arg Ile Glu Ser Val Leu Ser Ser Ser Gly Lys Arg
165 170 175

Leu Gly Cys Ile Lys Ile Ala Ala Ser Leu Lys Gly Ile
180 185

<210> 13

<211> 193

<212> PRT

<213> Homo sapiens

<400> 13

Met Gln Ser Leu Met Gln Ala Pro Leu Leu Ile Ala Leu Gly Leu Leu
1 5 10 15

Leu Ala Thr Pro Ala Gln Ala His Leu Lys Lys Pro Ser Gln Leu Ser
20 25 30

Ser Phe Ser Trp Asp Asn Cys Asp Glu Gly Lys Asp Pro Ala Val Ile
35 40 45

Arg Ser Leu Thr Leu Glu Pro Asp Pro Ile Val Val Pro Gly Asn Val
50 55 60

Thr Leu Ser Val Val Gly Ser Thr Ser Val Pro Leu Ser Ser Pro Leu
65 70 75 80

Lys Val Asp Leu Val Leu Glu Lys Glu Val Ala Gly Leu Trp Ile Lys
85 90 95

Ile Pro Cys Thr Asp Tyr Ile Gly Ser Cys Thr Phe Glu His Phe Cys

100 105 110
Asp Val Leu Asp Met Leu Ile Pro Thr Gly Glu Pro Cys Pro Glu Pro
115 120 125
Leu Arg Thr Tyr Gly Leu Pro Cys His Cys Pro Phe Lys Glu Gly Thr
130 135 140
Tyr Ser Leu Pro Lys Ser Glu Phe Val Val Pro Asp Leu Glu Leu Pro
145 150 155 160
Ser Trp Leu Thr Thr Gly Asn Tyr Arg Ile Glu Ser Val Leu Ser Ser
165 170 175
Ser Gly Lys Arg Leu Gly Cys Ile Lys Ile Ala Ala Ser Leu Lys Gly
180 185 190
Ile

<210> 14
<211> 193
<212> PRT
<213> Homo sapiens

<400> 14
Met Gln Ser Leu Met Gln Ala Pro Leu Leu Ile Ala Leu Gly Leu Leu
1 5 10 15
Leu Ala Thr Pro Ala Gln Ala His Leu Lys Lys Pro Ser Gln Leu Ser
20 25 30
Ser Phe Ser Trp Asp Asn Cys Asp Glu Gly Lys Asp Pro Ala Val Ile
35 40 45

Arg Ser Leu Thr Leu Glu Pro Asp Pro Ile Val Val Pro Gly Asn Val

50

55

60

Thr Leu Ser Val Val Gly Ser Thr Ser Val Pro Leu Ser Ser Pro Leu

65

70

75

80

Lys Val Asp Leu Val Leu Glu Lys Glu Val Ala Gly Leu Trp Ile Lys

85

90

95

Ile Pro Cys Thr Asp Tyr Ile Gly Ser Cys Thr Phe Glu His Phe Cys

100

105

110

Asp Val Leu Asp Met Leu Ile Pro Thr Gly Glu Pro Cys Pro Glu Pro

115

120

125

Leu Arg Thr Tyr Gly Leu Pro Cys His Cys Pro Phe Lys Glu Gly Thr

130

135

140

Tyr Ser Leu Pro Lys Ser Glu Phe Val Val Pro Asp Leu Glu Leu Pro

145

150

155

160

Ser Trp Leu Thr Thr Gly Asn Tyr Arg Ile Glu Ser Val Leu Ser Ser

165

170

175

Ser Gly Lys Arg Leu Gly Cys Ile Lys Ile Ala Ala Ser Leu Lys Gly

180

185

190

Ile

<210> 15

<211> 193

<212> PRT

<213> Homo sapiens

<400> 15

Met Gln Ser Leu Met Gln Ala Pro Leu Leu Ile Ala Leu Gly Leu Leu
1 5 10 15

Leu Ala Thr Pro Ala Gln Ala His Leu Lys Lys Pro Ser Gln Leu Ser
20 25 30

Ser Phe Ser Trp Asp Asn Cys Asp Glu Gly Lys Asp Pro Ala Val Ile
35 40 45

Arg Ser Leu Thr Leu Glu Pro Asp Pro Ile Val Val Pro Gly Asn Val
50 55 60

Thr Leu Ser Val Val Gly Ser Thr Ser Val Pro Leu Ser Ser Pro Leu
65 70 75 80

Lys Val Asp Leu Val Leu Glu Lys Glu Val Ala Gly Leu Trp Ile Lys
85 90 95

Ile Pro Cys Thr Asp Tyr Ile Gly Ser Cys Thr Phe Glu His Phe Cys
100 105 110

Asp Val Leu Asp Met Leu Ile Pro Thr Gly Glu Pro Cys Pro Glu Pro
115 120 125

Leu Arg Thr Tyr Gly Leu Pro Cys His Cys Pro Phe Lys Glu Gly Thr
130 135 140

Tyr Ser Leu Pro Lys Ser Glu Phe Val Val Pro Asp Leu Glu Leu Pro
145 150 155 160

Ser Trp Leu Thr Thr Gly Asn Tyr Arg Ile Glu Ser Val Leu Ser Ser
165 170 175

Ser Gly Lys Arg Leu Gly Cys Ile Lys Ile Ala Ala Ser Leu Lys Gly
180 185 190

Ile

<210> 16

<211> 193

<212> PRT

<213> Homo sapiens

<400> 16

Met Gln Ser Leu Met Gln Ala Pro Leu Leu Ile Ala Leu Gly Leu Leu
1 5 10 15

Leu Ala Thr Pro Ala Gln Ala His Leu Lys Lys Pro Ser Gln Leu Ser
20 25 30

Ser Phe Ser Trp Asp Asn Cys Asp Glu Gly Lys Asp Pro Ala Val Ile
35 40 45

Arg Ser Leu Thr Leu Glu Pro Asp Pro Ile Val Val Pro Gly Asn Val
50 55 60

Thr Leu Ser Val Val Gly Ser Thr Ser Val Pro Leu Ser Ser Pro Leu
65 70 75 80

Lys Val Asp Leu Val Leu Glu Lys Glu Val Ala Gly Leu Trp Ile Lys
85 90 95

Ile Pro Cys Thr Asp Tyr Ile Gly Ser Cys Thr Phe Glu His Phe Cys
100 105 110

Asp Val Leu Asp Met Leu Ile Pro Thr Gly Glu Pro Cys Pro Glu Pro
115 120 125

Leu Arg Thr Tyr Gly Leu Pro Cys His Cys Pro Phe Lys Glu Gly Thr
130 135 140

Tyr Ser Leu Pro Lys Ser Glu Phe Val Val Pro Asp Leu Glu Leu Pro
145 150 155 160

Ser Trp Leu Thr Thr Gly Asn Tyr Arg Ile Glu Ser Val Leu Ser Ser
165 170 175

Ser Gly Lys Arg Leu Gly Cys Ile Lys Ile Ala Ala Ser Leu Lys Gly
180 185 190

Ile

<210> 17

<211> 114

<212> PRT

<213> Homo sapiens

<400> 17

Met Thr Cys Lys Met Ser Gln Leu Glu Arg Asn Ile Glu Thr Ile Ile
1 5 10 15

Asn Thr Phe His Gln Tyr Ser Val Lys Leu Gly His Pro Asp Thr Leu
20 25 30

Asn Gln Gly Glu Phe Lys Glu Leu Val Arg Lys Asp Leu Gln Asn Phe
35 40 45

Leu Lys Lys Glu Asn Lys Asn Glu Lys Val Ile Glu His Ile Met Glu
50 55 60

Asp Leu Asp Thr Asn Ala Asp Lys Gln Leu Ser Phe Glu Glu Phe Ile
65 70 75 80

Met Leu Met Ala Arg Leu Thr Trp Ala Ser His Glu Lys Met His Glu

85

90

95

Gly Asp Glu Gly Pro Gly His His His Lys Pro Gly Leu Gly Glu Gly

100

105

110

Thr Pro

<210> 18

<211> 93

<212> PRT

<213> Homo sapiens

<400> 18

Met Leu Thr Glu Leu Glu Lys Ala Leu Asn Ser Ile Ile Asp Val Tyr

1

5

10

15

His Lys Tyr Ser Leu Ile Lys Gly Asn Phe His Ala Val Tyr Arg Asp

20

25

30

Asp Leu Lys Lys Leu Leu Glu Thr Glu Cys Pro Gln Tyr Ile Arg Lys

35

40

45

Lys Gly Ala Asp Val Trp Phe Lys Glu Leu Asp Ile Asn Thr Asp Gly

50

55

60

Ala Val Asn Phe Gln Glu Phe Leu Ile Leu Val Ile Lys Met Gly Val

65

70

75

80

Ala Ala His Lys Lys Ser His Glu Glu Ser His Lys Glu

85

90

<210> 19

<211> 92

<212> PRT

<213> Homo sapiens

<400> 19

Met Thr Lys Leu Glu Glu His Leu Glu Gly Ile Val Asn Ile Phe His

1 5 10 15

Gln Tyr Ser Val Arg Lys Gly His Phe Asp Thr Leu Ser Lys Gly Glu

20 25 30

Leu Lys Gln Leu Leu Thr Lys Glu Leu Ala Asn Thr Ile Lys Asn Ile

35 40 45

Lys Asp Lys Ala Val Ile Asp Glu Ile Phe Gln Gly Leu Asp Ala Asn

50 55 60

Gln Asp Glu Gln Val Asp Phe Gln Glu Phe Ile Ser Leu Val Ala Ile

65 70 75 80

Ala Leu Lys Ala Ala His Tyr His Thr His Lys Glu

85 90

<210> 20

<211> 92

<212> PRT

<213> Homo sapiens

<400> 20

Met Thr Lys Leu Glu Glu His Leu Glu Gly Ile Val Asn Ile Phe His

1 5 10 15

Gln Tyr Ser Val Arg Lys Gly His Phe Asp Thr Leu Ser Lys Gly Glu

20 25 30

Leu Lys Gln Leu Leu Thr Lys Glu Leu Ala Asn Thr Ile Lys Asn Ile

35

40

45

Lys Asp Lys Ala Val Ile Asp Glu Ile Phe Gln Gly Leu Asp Ala Asn

50

55

60

Gln Asp Glu Gln Val Asp Phe Gln Glu Phe Ile Ser Leu Val Ala Ile

65

70

75

80

Ala Leu Lys Ala Ala His Tyr His Thr His Lys Glu

85

90

<210> 21

<211> 91

<212> PRT

<213> Homo sapiens

<400> 21

Thr Lys Leu Glu Glu His Leu Glu Gly Ile Val Asn Ile Phe His Gln

1

5

10

15

Tyr Ser Val Arg Lys Gly His Phe Asp Thr Leu Ser Lys Gly Glu Leu

20

25

30

Lys Gln Leu Leu Thr Lys Glu Leu Ala Asn Thr Ile Lys Asn Ile Lys

35

40

45

Asp Lys Ala Val Ile Asp Glu Ile Phe Gln Gly Leu Asp Ala Asn Gln

50

55

60

Asp Glu Gln Val Asp Phe Gln Glu Phe Ile Ser Leu Val Ala Ile Ala

65

70

75

80

Leu Lys Ala Ala His Tyr His Thr His Lys Glu

85

90

<210> 22

<211> 93

<212> PRT

<213> Homo sapiens

<400> 22

Met Leu Thr Glu Leu Glu Lys Ala Leu Asn Ser Ile Ile Asp Val Tyr

1 5 10 15

His Lys Tyr Ser Leu Ile Lys Gly Asn Phe His Ala Val Tyr Arg Asp

20 25 30

Asp Leu Lys Lys Leu Leu Glu Thr Glu Cys Pro Gln Tyr Ile Arg Lys

35 40 45

Lys Gly Ala Asp Val Trp Phe Lys Glu Leu Asp Ile Asn Thr Asp Gly

50 55 60

Ala Val Asn Phe Gln Glu Phe Leu Ile Leu Val Ile Lys Met Gly Val

65 70 75 80

Ala Ala His Lys Lys Ser His Glu Glu Ser His Lys Glu

85 90

<210> 23

<211> 92

<212> PRT

<213> Homo sapiens

<400> 23

Met Thr Lys Leu Glu Glu His Leu Glu Gly Ile Val Asn Ile Phe His

1 5 10 15

Gln Tyr Ser Val Arg Lys Gly His Phe Asp Thr Leu Ser Lys Gly Glu
20 25 30

Leu Lys Gln Leu Leu Thr Lys Glu Leu Ala Asn Thr Ile Lys Asn Ile
35 40 45

Lys Asp Lys Ala Val Ile Asp Glu Ile Phe Gln Gly Leu Asp Ala Asn
50 55 60

Gln Asp Glu Gln Val Asp Phe Gln Glu Phe Ile Ser Leu Val Ala Ile
65 70 75 80

Ala Leu Lys Ala Ala His Tyr His Thr His Lys Glu
85 90

<210> 24

<211> 85

<212> PRT

<213> Homo sapiens

<400> 24

Asp Asn Gly Asp Val Cys Gln Asp Cys Ile Gln Met Val Thr Asp Ile
1 5 10 15

Gln Thr Ala Val Arg Thr Asn Ser Thr Phe Val Gln Ala Leu Val Glu
20 25 30

His Val Lys Glu Glu Cys Asp Arg Leu Gly Pro Gly Met Ala Asp Ile
35 40 45

Cys Lys Asn Tyr Ile Ser Gln Tyr Ser Glu Ile Ala Ile Gln Met Met
50 55 60

Met His Met Gln Asp Gln Gln Pro Lys Glu Ile Cys Ala Leu Val Gly

65 70 75 80

Phe Cys Asp Glu Val

85

<210> 25

<211> 381

<212> PRT

<213> Homo sapiens

<400> 25

Met Ala Glu Ser His Leu Leu Gln Trp Leu Leu Leu Leu Pro Thr

1 5 10 15

Leu Cys Gly Pro Gly Thr Ala Ala Trp Thr Thr Ser Ser Leu Ala Cys

20 25 30

Ala Gln Gly Pro Glu Phe Trp Cys Gln Ser Leu Glu Gln Ala Leu Gln

35 40 45

Cys Arg Ala Leu Gly His Cys Leu Gln Glu Val Trp Gly His Val Gly

50 55 60

Ala Asp Asp Leu Cys Gln Glu Cys Glu Asp Ile Val His Ile Leu Asn

65 70 75 80

Lys Met Ala Lys Glu Ala Ile Phe Gln Asp Thr Met Arg Lys Phe Leu

85 90 95

Glu Gln Glu Cys Asn Val Leu Pro Leu Lys Leu Leu Met Pro Gln Cys

100 105 110

Asn Gln Val Leu Asp Asp Tyr Phe Pro Leu Val Ile Asp Tyr Phe Gln

115 120 125

Asn Gln Ile Asp Ser Asn Gly Ile Cys Met His Leu Gly Leu Cys Lys

130

135

140

Ser Arg Gln Pro Glu Pro Glu Gln Glu Pro Gly Met Ser Asp Pro Leu

145

150

155

160

Pro Lys Pro Leu Arg Asp Pro Leu Pro Asp Pro Leu Leu Asp Lys Leu

165

170

175

Val Leu Pro Val Leu Pro Gly Ala Leu Gln Ala Arg Pro Gly Pro His

180

185

190

Thr Gln Asp Leu Ser Glu Gln Gln Phe Pro Ile Pro Leu Pro Tyr Cys

195

200

205

Trp Leu Cys Arg Ala Leu Ile Lys Arg Ile Gln Ala Met Ile Pro Lys

210

215

220

Gly Ala Leu Arg Val Ala Val Ala Gln Val Cys Arg Val Val Pro Leu

225

230

235

240

Val Ala Gly Gly Ile Cys Gln Cys Leu Ala Glu Arg Tyr Ser Val Ile

245

250

255

Leu Leu Asp Thr Leu Leu Gly Arg Met Leu Pro Gln Leu Val Cys Arg

260

265

270

Leu Val Leu Arg Cys Ser Met Asp Asp Ser Ala Gly Pro Arg Ser Pro

275

280

285

Thr Gly Glu Trp Leu Pro Arg Asp Ser Glu Cys His Leu Cys Met Ser

290

295

300

Val Thr Thr Gln Ala Gly Asn Ser Ser Glu Gln Ala Ile Pro Gln Ala

305

310

315

320

Met Leu Gln Ala Cys Val Gly Ser Trp Leu Asp Arg Glu Lys Cys Lys

325

330

335

Gln Phe Val Glu Gln His Thr Pro Gln Leu Leu Thr Leu Val Pro Arg

340

345

350

Gly Trp Asp Ala His Thr Thr Cys Gln Ala Leu Gly Val Cys Gly Thr

355

360

365

Met Ser Ser Pro Leu Gln Cys Ile His Ser Pro Asp Leu

370

375

380

<210> 26

<211> 379

<212> PRT

<213> Homo sapiens

<400> 26

Met Ala Glu Ser His Leu Leu Gln Trp Leu Leu Leu Leu Pro Thr

1

5

10

15

Leu Cys Gly Pro Gly Thr Ala Ala Trp Thr Thr Ser Ser Leu Ala Cys

20

25

30

Ala Gln Gly Pro Glu Phe Trp Cys Gln Ser Leu Glu Gln Ala Leu Gln

35

40

45

Cys Arg Ala Leu Gly His Cys Leu Gln Glu Val Trp Gly His Val Gly

50

55

60

Ala Asp Asp Leu Cys Gln Glu Cys Glu Asp Ile Val His Ile Leu Asn

65

70

75

80

Lys Met Ala Lys Glu Ala Ile Phe Gln Asp Thr Met Arg Lys Phe Leu

85

90

95

Glu Gln Glu Cys Asn Val Leu Pro Leu Lys Leu Leu Met Pro Gln Cys

100

105

110

Asn Gln Val Leu Asp Asp Tyr Phe Pro Leu Val Ile Asp Tyr Phe Gln

115

120

125

Asn Gln Thr Asp Ser Asn Gly Ile Cys Met His Leu Gly Cys Lys Ser

130

135

140

Arg Gln Pro Glu Pro Glu Gln Glu Pro Gly Met Ser Asp Pro Leu Pro

145

150

155

160

Lys Pro Leu Arg Asp Pro Leu Pro Asp Pro Leu Leu Asp Lys Leu Val

165

170

175

Leu Pro Val Leu Pro Gly Ala Leu Gln Ala Arg Pro Gly Pro His Thr

180

185

190

Gln Asp Leu Ser Glu Gln Gln Phe Pro Ile Pro Leu Pro Tyr Cys Trp

195

200

205

Cys Arg Ala Leu Ile Lys Arg Ile Gln Ala Met Ile Pro Lys Gly Ala

210

215

220

Leu Arg Val Ala Val Ala Gln Val Cys Arg Val Val Pro Leu Val Ala

225

230

235

240

Gly Gly Ile Cys Gln Cys Leu Ala Glu Arg Tyr Ser Val Ile Leu Leu

245

250

255

Asp Thr Leu Leu Gly Arg Met Leu Pro Gln Leu Val Cys Arg Leu Val

260

265

270

Leu Arg Cys Ser Met Asp Asp Ser Ala Gly Pro Arg Ser Pro Thr Gly

275

280

285

Glu Trp Leu Pro Arg Asp Ser Glu Cys His Leu Cys Met Ser Val Thr

290 295 300
 Thr Gln Ala Gly Asn Ser Ser Glu Gln Ala Ile Pro Gln Ala Met Leu
 305 310 315 320
 Gln Ala Cys Val Gly Ser Trp Leu Asp Arg Glu Lys Cys Lys Gln Phe
 325 330 335
 Val Glu Gln His Thr Pro Gln Leu Leu Thr Leu Val Pro Arg Gly Trp
 340 345 350
 Asp Ala His Thr Thr Cys Gln Ala Leu Gly Val Cys Gly Thr Met Ser
 355 360 365
 Ser Pro Leu Gln Cys Ile His Ser Pro Asp Leu
 370 375

<210> 27

<211> 527

<212> PRT

<213> Homo sapiens

<400> 27

Met Tyr Ala Leu Phe Leu Leu Ala Ser Leu Leu Gly Ala Ala Leu Ala
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 Gly Pro Val Leu Gly Leu Lys Glu Cys Thr Arg Gly Ser Ala Val Trp
 20 25 30
 Cys Gln Asn Val Lys Thr Ala Ser Asp Cys Gly Ala Val Lys His Cys
 35 40 45
 Leu Gln Thr Val Trp Asn Lys Pro Thr Val Lys Ser Leu Pro Cys Asp
 50 55 60

Ile Cys Lys Asp Val Val Thr Ala Ala Gly Asp Met Leu Lys Asp Asn

65

70

75

80

Ala Thr Glu Glu Glu Ile Leu Val Tyr Leu Glu Lys Thr Cys Asp Trp

85

90

95

Leu Pro Lys Pro Asn Met Ser Ala Ser Cys Lys Glu Ile Val Asp Ser

100

105

110

Tyr Leu Pro Val Ile Leu Asp Ile Ile Lys Gly Glu Met Ser Arg Pro

115

120

125

Gly Glu Val Cys Ser Ala Leu Asn Leu Cys Glu Ser Leu Gln Lys His

130

135

140

Leu Ala Glu Leu Asn His Gln Lys Gln Leu Glu Ser Asn Lys Ile Pro

145

150

155

160

Glu Leu Asp Met Thr Glu Val Val Ala Pro Phe Met Ala Asn Ile Pro

165

170

175

Leu Leu Leu Tyr Pro Gln Asp Gly Pro Arg Ser Lys Pro Gln Pro Lys

180

185

190

Asp Asn Gly Asp Val Cys Gln Asp Cys Ile Gln Met Val Thr Asp Ile

195

200

205

Gln Thr Ala Val Arg Thr Asn Ser Thr Phe Val Gln Ala Leu Val Glu

210

215

220

His Val Lys Glu Glu Cys Asp Arg Leu Gly Pro Gly Met Ala Asp Ile

225

230

235

240

Cys Lys Asn Tyr Ile Ser Gln Tyr Ser Glu Ile Ala Ile Gln Met Met

245

250

255

Met His Met Gln Asp Gln Gln Pro Lys Glu Ile Cys Ala Leu Val Gly

260 265 270
Phe Cys Asp Glu Val Lys Glu Met Pro Met Gln Thr Leu Val Pro Ala
275 280 285
Lys Val Ala Ser Lys Asn Val Ile Pro Ala Leu Glu Leu Val Glu Pro
290 295 300
Ile Lys Lys His Glu Val Pro Ala Lys Ser Asp Val Tyr Cys Glu Val
305 310 315 320
Cys Glu Phe Leu Val Lys Glu Val Thr Lys Leu Ile Asp Asn Asn Lys
325 330 335
Thr Glu Lys Glu Ile Leu Asp Ala Phe Asp Lys Met Cys Ser Lys Leu
340 345 350
Pro Lys Ser Leu Ser Glu Glu Cys Gln Glu Val Val Asp Thr Tyr Gly
355 360 365
Ser Ser Ile Leu Ser Ile Leu Leu Glu Glu Val Ser Pro Glu Leu Val
370 375 380
Cys Ser Met Leu His Leu Cys Ser Gly Thr Arg Leu Pro Ala Leu Thr
385 390 395 400
Val His Val Thr Gln Pro Lys Asp Gly Gly Phe Cys Glu Val Cys Lys
405 410 415
Lys Leu Val Gly Tyr Leu Asp Arg Asn Leu Glu Lys Asn Ser Thr Lys
420 425 430
Gln Glu Ile Leu Ala Ala Leu Glu Lys Gly Cys Ser Phe Leu Pro Asp
435 440 445
Pro Tyr Gln Lys Gln Cys Asp Gln Phe Val Ala Glu Tyr Glu Pro Val
450 455 460

Leu Ile Glu Ile Leu Val Glu Val Met Asp Pro Ser Phe Val Cys Leu
 465 470 475 480

Lys Ile Gly Ala Cys Pro Ser Ala His Lys Pro Leu Leu Gly Thr Glu
 485 490 495

Lys Cys Ile Trp Gly Pro Ser Tyr Trp Cys Gln Asn Thr Glu Thr Ala
 500 505 510

Ala Gln Cys Asn Ala Val Glu His Cys Lys Arg His Val Trp Asn
 515 520 525

<210> 28

<211> 523

<212> PRT

<213> Homo sapiens

<400> 28

Met Tyr Ala Leu Phe Leu Leu Ala Ser Leu Leu Gly Ala Ala Leu Ala
 1 5 10 15

Gly Pro Val Leu Gly Leu Lys Glu Cys Thr Arg Gly Ser Ala Val Trp
 20 25 30

Cys Gln Asn Val Lys Thr Ala Ser Asp Cys Gly Ala Val Lys His Cys
 35 40 45

Leu Gln Thr Val Trp Asn Lys Pro Thr Val Lys Ser Leu Pro Cys Asp
 50 55 60

Ile Cys Lys Asp Val Val Thr Ala Ala Gly Asp Met Leu Lys Asp Asn
 65 70 75 80

Ala Thr Glu Glu Glu Ile Leu Val Tyr Leu Glu Lys Thr Cys Asp Trp

85 90 95
Leu Pro Lys Pro Asn Met Ser Ala Ser Cys Lys Glu Ile Val Asp Ser
100 105 110
Tyr Leu Pro Val Ile Leu Asp Ile Ile Lys Gly Glu Met Ser Arg Pro
115 120 125
Gly Glu Val Cys Ser Ala Leu Leu Cys Glu Ser Leu Gln Lys His Leu
130 135 140
Ala Glu Leu Asn His Gln Lys Gln Leu Glu Ser Asn Lys Ile Pro Glu
145 150 155 160
Leu Asp Met Thr Glu Val Val Ala Pro Phe Met Ala Asn Ile Pro Leu
165 170 175
Leu Leu Tyr Pro Gln Asp Gly Pro Arg Ser Lys Pro Gln Pro Lys Asp
180 185 190
Asn Gly Asp Val Cys Gln Asp Cys Ile Gln Met Val Thr Asp Ile Gln
195 200 205
Thr Ala Val Arg Thr Asn Ser Thr Phe Val Gln Ala Leu Val Glu His
210 215 220
Val Lys Glu Glu Cys Asp Arg Leu Gly Pro Gly Met Ala Asp Ile Cys
225 230 235 240
Lys Asn Tyr Ile Ser Gln Tyr Ser Glu Ile Ala Ile Gln Met Met Met
245 250 255
His Met Gln Pro Lys Glu Ile Cys Ala Leu Val Gly Phe Cys Asp Glu
260 265 270
Val Lys Glu Met Pro Met Gln Thr Leu Val Pro Ala Lys Val Ala Ser
275 280 285

Lys Asn Val Ile Pro Ala Leu Glu Leu Val Glu Pro Ile Lys Lys His

290

295

300

Glu Val Pro Ala Lys Ser Asp Val Tyr Cys Glu Val Cys Glu Phe Leu

305

310

315

320

Val Lys Glu Val Thr Lys Leu Ile Asp Asn Asn Lys Thr Glu Lys Glu

325

330

335

Ile Leu Asp Ala Phe Asp Lys Met Cys Ser Lys Leu Pro Lys Ser Leu

340

345

350

Ser Glu Glu Cys Gln Glu Val Val Asp Thr Tyr Gly Ser Ser Ile Leu

355

360

365

Ser Ile Leu Leu Glu Glu Val Ser Pro Glu Leu Val Cys Ser Met Leu

370

375

380

His Leu Cys Ser Gly Thr Arg Leu Pro Ala Leu Thr Val His Val Thr

385

390

395

400

Gln Pro Lys Asp Gly Gly Phe Cys Glu Val Cys Lys Lys Leu Val Gly

405

410

415

Tyr Leu Asp Arg Asn Leu Glu Lys Asn Ser Thr Lys Gln Glu Ile Leu

420

425

430

Ala Ala Leu Glu Lys Gly Cys Ser Phe Leu Pro Asp Pro Tyr Gln Lys

435

440

445

Gln Cys Asp Gln Phe Val Ala Glu Tyr Glu Pro Val Leu Ile Glu Ile

450

455

460

Leu Val Glu Val Met Asp Pro Ser Phe Val Cys Leu Lys Ile Gly Ala

465

470

475

480

Cys Pro Ser Ala His Lys Pro Leu Leu Gly Thr Glu Lys Cys Ile Trp
 485 490 495

Gly Pro Ser Tyr Trp Cys Gln Asn Thr Glu Thr Ala Ala Gln Cys Asn
 500 505 510

Ala Val Glu His Cys Lys Arg His Val Trp Asn
 515 520

<210> 29

<211> 380

<212> PRT

<213> Homo sapiens

<400> 29

Met Ala Glu Ser His Leu Leu Gln Trp Leu Leu Leu Leu Leu Pro Thr
 1 5 10 15

Leu Cys Gly Pro Gly Thr Ala Ala Trp Thr Thr Ser Ser Leu Ala Cys
 20 25 30

Ala Gln Gly Pro Glu Phe Trp Cys Gln Ser Leu Glu Gln Ala Leu Gln
 35 40 45

Cys Arg Ala Leu Gly His Cys Leu Gln Glu Val Trp Gly His Val Gly
 50 55 60

Ala Asp Asp Leu Cys Gln Glu Cys Glu Asp Ile Val His Ile Leu Asn
 65 70 75 80

Lys Met Ala Lys Glu Ala Ile Phe Gln Asp Thr Met Arg Lys Phe Leu
 85 90 95

Glu Gln Glu Cys Asn Val Leu Pro Leu Lys Leu Leu Met Pro Gln Cys
 100 105 110

Asn Gln Val Leu Asp Asp Tyr Phe Pro Leu Val Ile Asp Tyr Phe Gln

115

120

125

Asn Gln Thr Asp Ser Asn Gly Ile Cys Met His Gly Leu Cys Lys Ser

130

135

140

Arg Gln Pro Glu Pro Glu Gln Glu Pro Gly Met Ser Asp Pro Leu Pro

145

150

155

160

Lys Pro Leu Arg Asp Pro Leu Pro Asp Pro Leu Leu Asp Lys Leu Val

165

170

175

Leu Pro Val Leu Pro Gly Ala Leu Gln Ala Arg Pro Gly Pro His Thr

180

185

190

Gln Asp Leu Ser Glu Gln Gln Phe Pro Ile Pro Leu Pro Tyr Cys Trp

195

200

205

Leu Cys Arg Ala Leu Ile Lys Arg Ile Gln Ala Met Ile Pro Lys Gly

210

215

220

Ala Leu Ala Val Ala Val Ala Gln Val Cys Arg Val Val Pro Leu Val

225

230

235

240

Ala Gly Gly Ile Cys Gln Cys Leu Ala Glu Arg Tyr Ser Val Ile Leu

245

250

255

Leu Asp Thr Leu Leu Gly Arg Met Leu Pro Gln Leu Val Cys Arg Leu

260

265

270

Val Leu Arg Cys Ser Met Asp Asp Ser Ala Gly Pro Arg Ser Pro Thr

275

280

285

Gly Glu Trp Leu Pro Arg Asp Ser Glu Cys His Leu Cys Met Ser Val

290

295

300

Thr Thr Gln Ala Gly Asn Ser Ser Glu Gln Ala Ile Pro Gln Ala Met
 305 310 315 320

Leu Gln Ala Cys Val Gly Ser Trp Leu Asp Arg Glu Lys Cys Lys Gln
 325 330 335

Phe Val Glu Gln His Thr Pro Gln Leu Leu Thr Leu Val Pro Arg Gly
 340 345 350

Trp Asp Ala His Thr Thr Cys Gln Ala Leu Gly Val Cys Gly Thr Met
 355 360 365

Ser Ser Pro Leu Gln Cys Ile His Ser Pro Asp Leu
 370 375 380

<210> 30

<211> 4124

<212> DNA

<213> Homo sapiens

<400> 30

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<210> 31

<211> 579

<212> DNA

<213> Homo sapiens

<400> 31

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 garggnaarg aycngcngt nathmgnwsn ytnacnytn arcngaycc nathgtngtn 180
 ccnggnaayg tnacnytnws ngtngtnggn wsnacnwsng tncnytnws nwsnccnytn 240
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 gaytayathg gnwsntgyac nttygarca ytytgygay tnytngayat gytnathccn 360
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 aargarggna cntaywsnyt nccnaarwsn garttygtng tncngayyt ngarytnccn 480
 wsntggytna cnacnggnaa ytaymgnath garwsngtny tnwsnwsnws nggnaarmgn 540
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<210> 32

<211> 633

<212> DNA

<213> Homo sapiens

<400> 32

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<210> 33

<211> 1047

<212> DNA

<213> Homo sapiens

<400> 33

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<210> 34

<211> 1706

<212> DNA

<213> Homo sapiens

<400> 34

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<210> 35

<211> 633

<212> DNA

<213> Homo sapiens

<400> 35

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<210> 36

<211> 1047

<212> DNA

<213> Homo sapiens

<400> 36

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<210> 37

<211> 1706

<212> DNA

<213> Homo sapiens

<400> 37

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<210> 38

<211> 1043

<212> DNA

<213> Homo sapiens

<400> 38

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<210> 39

<211> 1047

<212> DNA

<213> Homo sapiens

<400> 39

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<210> 40

<211> 1705

<212> DNA

<213> Homo sapiens

<400> 40

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1705

<210> 41

<211> 1043

<212> DNA

<213> Homo sapiens

<400> 41

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<211> 342

<212> DNA

<213> Homo sapiens

<400> 42

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<210> 43

<211> 4195

<212> DNA

<213> Homo sapiens

<400> 43

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<212> DNA

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<211> 425

<212> DNA

<213> Homo sapiens

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<211> 565

<212> DNA

<213> Homo sapiens

<400> 47

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565

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<211> 430

<212> DNA

<213> Homo sapiens

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<211> 305

<212> DNA

<213> Homo sapiens

<400> 49

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<211> 452

<212> DNA

<213> Homo sapiens

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<210> 51

<211> 4439

<212> DNA

<213> Homo sapiens

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<211> 565

<212> DNA

<213> Homo sapiens

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<211> 255

<212> DNA

<213> Homo sapiens

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<211> 2724

<212> DNA

<213> Homo sapiens

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<211> 2171

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<213> Homo sapiens

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Leu Val Arg

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<400> 71

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Tyr Ser Leu Pro Lys Ser Glu Phe Ala Val Pro Asp Leu Glu Leu Pro
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Ser Phe Ser Trp Asp Asn Cys Asp Glu Gly Lys Asp Pro Ala Val Ile

35 40 45

Arg Ser Leu Thr Leu Glu Pro Asp Pro Ile Val Val Pro Gly Asn Val

50 55 60

Thr Leu Ser Val Val Gly Ser Thr Ser Val Pro Leu Ser Ser Pro Leu

65 70 75 80

Lys Val Asp Leu Val Leu Glu Lys Glu Val Ala Gly Leu Trp Ile Lys

85 90 95

Ile Pro Cys Thr Asp Tyr Ile Gly Ser Cys Thr Phe Glu His Phe Cys

100 105 110

Asp Val Leu Asp Met Leu Ile Pro Thr Gly Glu Pro Cys Pro Glu Pro

115 120 125

Leu Arg Thr Tyr Gly Leu Pro Cys His Cys Pro Phe Lys Glu Gly Thr

130 135 140

Tyr Ser Leu Pro Lys Ser Glu Phe Val Val Pro Asp Leu Glu Leu Pro

145 150 155 160

Ser Trp Leu Thr Thr Gly Asn Tyr Arg Ile Glu Ser Val Leu Ser Ser

165 170 175

Ser Gly Lys Arg Leu Gly Cys Ile Lys Ile Ala Ala Ser Leu Lys Gly

180 185 190

Ile

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Ala Val Arg Thr Asn Ser Thr Phe Val Gln Ala Leu Val Glu His Val

20 25 30

Lys Glu Glu Cys Asp Arg Leu Gly Pro Gly Met Ala Asp Ile Cys Lys

35 40 45

Asn Tyr Ile Ser Gln Tyr Ser Glu Ile Ala Ile Gln Met Met Met His

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Met Gln Asp Gln Gln Pro Lys Glu Ile Cys Ala Leu Val Gly Phe Cys

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Asp Glu Val

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<212> PRT

<213> Homo sapiens

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Met Thr Cys Lys Met Ser Gln Leu Glu Arg Asn Ile Glu Thr Ile Ile

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Asn Thr Phe His Gln Tyr Ser Val Lys Leu Gly His Pro Asp Thr Leu

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Asn Gln Gly Glu Phe Lys Glu Leu Val Arg Lys Asp Leu Gln Asn Phe

35 40 45

Leu Lys Lys Glu Asn Lys Asn Glu Lys Val Ile Glu His Ile Met Glu

50 55 60

Asp Asp Leu Asp Thr Asn Ala Asp Lys Gln Leu Ser Phe Glu Glu Phe

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Ile Met Leu Met Ala Arg Leu Thr Trp Ala Ser His Glu Lys Met His

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Glu Gly Asp Glu Gly Pro Gly His His His Lys Pro Gly Leu Gly Glu

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Gly Thr Pro

115